

4301-1098

SHOW CASE, IN PARTICULAR FOR DISPLAYING SHOES OR THE LIKE
BACKGROUND OF THE INVENTION

5 1. Field of the Invention

The invention refers to a show case, in particular for displaying shoes or the like, comprising horizontal shelf plates as well as shelf plates tilted from the rear toward the front, said tilted shelf plates being disposed each
10 above a horizontal shelf plate and supported by a horizontal pivot axis located in a rear area of the show case and being upwardly tiltable around said pivot axis.

2. Description of the Prior Art

Show cases with horizontal and tilted shelf plates as
15 used in the past in the field of store architecture have impressive number of drawbacks. The confusing mass of shoes presented in pairs renders the customer his decision to purchase difficult, and, particularly if the sales facilities are difficult to survey, or in supermarkets, the
20 danger of theft is increased. The solution as adopted in some instances, to display only one shoe of the pair, is not suited as a permanent solution because the sales personnel must spend a lot of time for procuring the second shoe of the pair from storage.

25 The suggestion has already been made, to build a show case of the kind mentioned above. Such a show case makes it possible to place one shoe of a pair of the tilted shelf plate, and the other on the horizontal shelf plate underneath. A show case of this kind is disclosed in DE-OS
30 No. 25 29 198. A disadvantage of this known show case consists in the fact, that the pivotably tilted shelf plate is supported on the horizontal shelf plate located below, in the region of its front edge. This makes it impossible, to select the slope of the tilted shelf plate independent of
35 its distance from the horizontal shelf plate. On the contrary, the show case disclosed in DE-OS No. 25 29 198 has the disadvantage, that the distances between the horizontal

and the tilted shelf plates corresponding to a specific slope is set once and for all, so that this distance must be selected considering the largest sized pair of shoes.

A show case is known from US Patent No. 4,383,722 to the applicant. In that prior art show case bearing boxes receiving the pivots fastened onto the side plates are connected in particular with the tilted shelf plates at the rearward areas thereof, said bearing boxes being disposed in lateral glued parts which may be provided, e.g. of wood or plastic, running perpendicular to the plane of the tilted shelf plate. This embodiment shows not only a particularly stable construction of the shelf plates, which, when wood is used, is also pleasing to the eye, but the application of the pivot bearing is rather complicated, because the bearing boxes are separate, distinct components that must be connected to the tilted shelf plates.

According to one embodiment of the show case of US-Patent 4,383,722 each bearing box is provided with an angled slot open toward the side and having one leg running perpendicular, and another leg running parallel to the tilted shelf plate, said perpendicular leg being open at its bottom and said parallel leg being closed toward the rear.

It is an object of the present invention, to make improvements on the show case mentioned above, so as to avoid the previously mentioned drawbacks and, particularly, to make it adaptable in a simple manner of the conditions concerning availability of space, for example in a sales store. Another object is to build a show case pleasing to the eye.

SUMMARY OF THE INVENTION

The foregoing and other objects are attained according to one aspect of the invention by making pivot bearings of the tilted shelf plates integrally with the shelf plates themselves.

According to one embodiment of the invention each

bearing box and the tilted shelf plates are integrally formed from plastics material or from metal or of combinations thereof so that they may be manufactured e.g. by injection molding or casting in a one step operation.

5 In order to prevent the shoes from sliding off the tilted shelf plates there may be provided retaining bars or ledges which may be locked in different positions on the tilted shelf plates. In such an embodiment the shoes supported on the tilted shelf plates abut with the front
10 side of their heel against the retaining bar or ledge. These retaining bars or ledges according to one embodiment of the invention are inserted into grooves provided in the tilted shelf plates opening to the upper side thereof.

Within the framework of the invention elastic cams may
15 be provided in the leg of the angled slot of the bearing boxes running parallel to the tilted shelf plate for securely holding the pivot pin(s).

Furthermore, provision may be made within the framework of the invention, to provide the horizontal shelf plates on
20 their lateral surfaces facing the side plates with slots engaged by guide rails fastened to the side plates, which guide rails when engaged into the longitudinal slots do not only establish an appropriate mounting of horizontal shelf plates, but also allow horizontal adjusting of the
25 horizontal shelf plates. This embodiment allows for a particularly secure and visually pleasing application of the horizontal shelf plates.

It may be desirable not to provide for an unconditional possibility of tilting the tilted shelf plates upward for
30 the purpose of making accessible the shoes resting on the horizontal shelf plates. If such be the case, there may be provided within the framework of the invention, lock bars or bolts disposed below the tilted shelf plates, each lock bar or bolt being retractable against the force of a spring from
35 its locking position, in which said lock bar or bolt engages e.g. into a bore in at least one of the side plates of the show case.

BRIEF DESCRIPTION OF THE DRAWINGS

Additional details and advantages follow from the subsequent description of embodiments schematically shown in the drawings. The figures show:

Fig. 1 a perspective view of a tilted shelf plate,

Fig. 2 a sign to be attached to the front edge of the shelf plate of Fig. 1,

Fig. 3 a perspective view of a horizontal shelf plate with guide rail,

Fig. 4 a section along the line IV-IV in Fig. 1,

Fig. 5 in a view corresponding to the view of Fig. 4 a different embodiment of a tilted shelf plate,

Fig. 6 a perspective view of a tilted shelf plate, a horizontal shelf plate and a side plate with three rows of bores in a position for ladies shoes and

Fig. 7 a perspective view of a show case comprising a side plate, a tilted shelf plate and a horizontal shelf plate in a position for gentlemen shoes.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

In accordance with Figs. 1, 3, 6 and 7 in particular, the show case of the invention comprises horizontal shelf plates 2 and tilted shelf plates 4 disposed between vertical side plates 6. In the embodiment shown in Fig. 6 and 7 there are provided in the side plates 6 three rows 8, 10, 12 of holes equidistantly positioned to one another. In order to facilitate insertion of pins and the like in the holes (bores) in the side plates 6 numerals 14 are provided.

As shown in Fig. 1 each tilted shelf plate 4 comprises a plane topwall 20', two plane sidewalls 22 and a curved frontwall 24. On the underside of the topwall there are provided to series of ribs or ledges one series of ledges 26 extending longitudinally and the other series of ledges 28

extending perpendicular thereto.

In the sidewalls 22 of the tilted shelf plates 4 there are provided integrally formed bearing boxes 30 each provided with an angled slot 32 having one leg 34 running parallel and one leg 36 running perpendicular to the topwall 20 of the tilted shelf plate 4. The perpendicular leg 36 is open at its bottom and broadens at its end region. The horizontal leg 34 comprises cam surfaces 38 which produce inwardly and are elastically displaceable outwardly if a pivot is pushed by way of the slot 32 into its final position. The pivot may be a simple pin 40 inserted in one of the holes 10, 12 of a side plate 6.

In the top surface wall 20 of the tilted shelf plate 4 there is provided at least one slot 50 intended for receiving a retaining bar or ledge 52.

As shown in Fig. 4 the slot 50 may be a simple slot or as shown in Fig. 5 the slot 50 may be provided with a U-shaped profile 54 extending over the entire length of the slot 50.

The retaining bar or ledge 52 of the tilted shelf plate 4 inserted into the at least one slot 50 in the top wall 20 of the tilted shelf plate 4 is intended to prevent the skidding of shoes 60, 70 off the tilted shelf plate 4.

Fig. 2 shows an identification or price plate 56 of arced shape which may be attached to the frontwall 24 of the tilted shelf plate 4 as indicated by the arrow 58 in Fig. 2.

The horizontal shelf plate 2 as shown in Fig. 3 may be a simple plate having slots 48 in its sidewalls 42 for receiving guide rails 44 which can be fastened to the side plates 6 by inserting pins 46 of the guide rails 44 into appropriate holes 8, 10 of the side plates 6. It is possible

to provide for longer guide rails 44 and for shorter guide rails 44. Shorter guide rails 44 are primarily intended for the Fig. 6 show case (ladies shoes). Longer guide rails 44 are primarily intended for the Fig. 7 show case (gentlemen shoes and boxes on the horizontal shelf plates 2).

The tilted shelf plates 4 can be turned each in the region of its rear end around a pivot pin 40 inserted in one of the holes 10 or 12 of the side plates 6. The lower end position is set by means of support elements inserted in one of the holes 8 of the front row. It is easily seen that the lower end position of the tilted shelf plate 4 may be selected and will depending on the particular hole 8 into which the support element (e.g. a simple pin) has been inserted.

However such support element may be inserted into a hole high enough to place the tilted shelf plate 4 into a horizontal position if desired.

20

In as much as the slope of the tilted shelf plate 4 may be selected without regard to their distances from the horizontal shelf plates 2 located underneath it is possible to arrange the support elements in such a way that the tilted shelf plates 4 occupy in their lowest position a tilted position which has been selected.

The show case of the invention provides for the second shoe 60' of a pair mating with the shoe 60 resting on a tilted shelf plate 4 to be positioned on the invisible horizontal shelf plate 2 located below the shelf plate 4. This represents an important advantage of the invention, because the distance between each tilted shelf plate 4 and its corresponding horizontal shelf plate 4 may be adjusted in accordance with the height of the particular model of shoe 60 to be displayed. If, at any time, the second shoe 60' resting on the horizontal shelf plate 2 is wanted, the

tilted shelf plate 4 is turned upward, rendering thereby the second shoe 60' of the pair accessible.

The horizontal shelf plates 2 may be pushed forward
 5 from their position shown in Fig. 1 whenever the tilted shelf plates 4 are kept in their turned-up position, as e.g. in the event of a clearance sale. As soon as one show case is partially emptied, one or several of the tilted shelf plates 4 may be lowered again, so as to always impart the
 10 visual impression of full show cases.

If it be desirable not to provide for an unconditional tilting upward of the shelf plates 4, a locking device (not shown) may be provided for each tilted shelf plate 4 in the
 15 region of its front edge, which device in its locked position prevents the shelf plate from being tilted upward.

In Fig. 7 an embodiment of the show case of the invention is shown in which the storage space defined by the
 20 horizontal shelf plates 2 is used for storing boxes 70' for shoes 70 which are displaced on the tilted shelf plates 4. In this embodiment the horizontal shelf plates 2 are pushed back in order to provide for sufficient space for shoe-boxes 70'.

25

As shown in Figs. 1, 4 and 5 in the side walls 22 of the tilted shelf plates 4 there are recesses 29 open the underside which allow an horizontal position of the tilted shelf plates 4 both for use of the show case of the
 30 invention for ladies shoes and for gentlemen shoes. In this case an additional pin is inserted into appropriate holes 10 in both sidewall plates 6. These pins abut into the recess 29 and engage the sidewalls 22 in the region of the basis 27 of the recesses 29. The basis 27 is aligned with the upper
 35 side of the legs 34 of the angled slots 32.

In order to facilitate and assist in selecting

appropriate holes 8, 10 and 12 respectively when setting up the show case templates may be attached to the side wall plates 6. These templates having markings, e.g. in the form of holes/slots, that identify the holes into which pins for the tilted shelf plates 4 and for the guide rails 44 are to be inserted. Such templates can be provided for arranging the show case for - ladies shoes 60 (fig. 6)

- gentlemen shoes

- ladies shoes with boxes on the horizontal shelf plates

10 - gentlemen shoes 70 with boxes 70' on horizontal shelf plates (fig. 7)